

Further Observations on the Species of *Utetheisa* Hübner (Lep.: Arctiidae) in the Western and Central Pacific with the Description of a new Species from Niue Island

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Introduction

In two previous papers (Robinson, 1971; Robinson & Robinson, 1974) we reviewed the distribution and biology of the species of *Utetheisa* inhabiting the western Pacific: we paid particular attention to those species found in Fiji and the New Hebrides and illustrated the adults and larvae of all the species then known to us. Since our earlier notes were published, many more specimens of *Utetheisa* have been made available to us and we have carried out further field-work. We are thus able here to amplify our observations on the distribution of Pacific *Utetheisa* and to describe a new species from the central Pacific.

There are now five species of *Utetheisa* known from the western and central Pacific. Two species, *U. lotrix stigmata* Rothschild and *U. pulchelloides marshallorum* Rothschild, are widespread. Larvae of the former feed on species of Papilionaceae, and those of the latter on Boraginaceae, notably *Messerschmidia argentea* (Linn. f.) Johnston. The remaining three species, *salomonis* Rothschild, *clareae* Robinson and *maddisoni* sp. n. (described below), are of more limited distribution and their larvae feed also on *Messerschmidia*. A sixth species, *U. pulchelloides vaga* Jordan, is an occasional migrant to the Pacific islands (Robinson & Robinson, 1974; Holloway, 1977).

The specimens described here were in or have now been placed in the collection of the British Museum (Natural History), London ('BMNH') unless stated otherwise.

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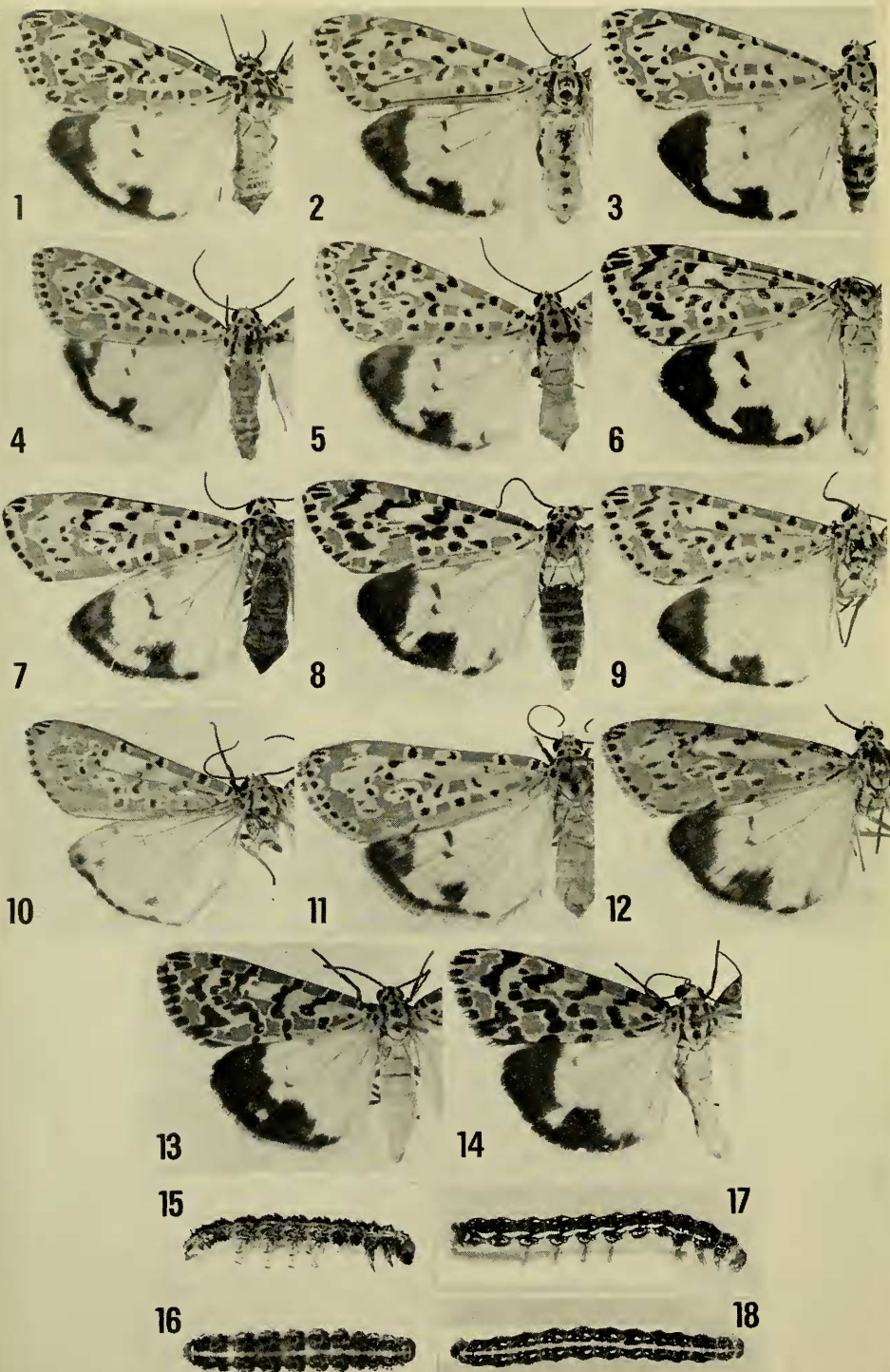
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PLATE IX

Figs. 1-12, 15, 16. *Utetheisa pulchelloides marshallorum* Rothschild. (1) ♀, Tonga, Tongatapu. (2) ♀, Tokelau Is., Atafu. (3) ♂, Tuvalu, Funafuti. (4) ♂, Marshall Is., LECTOTYPE. (5) ♀, Marshall Is., PARALECTOTYPE. (6) ♀, Cook Is., Aitutaki. (7) ♀, Cook Is., Rarotonga. (8) ♂, Cook Is., Mitiaro. (9) ♂, Caroline I. (10) ♂, Caroline I. (11) ♀, Tuamotu Arch., Napuka. (12) ♂, Henderson I. (15) Larva, Caroline I., lateral view. (16) Larva, Caroline I., dorsal view.

Fig. 13. *Utetheisa salomonis* Rothschild, ♂, New Hebrides, Efate. Figs. 14, 17, 18. *Utetheisa maddisoni* sp. n. (14) ♂, Niue I., HOLOTYPE. (17) Larva, Niue I., PARATYPE, lateral view. (18) Larva, Niue I., PARATYPE, dorsal view.



Key to the males of Pacific *Utetheisa* species

- 1 Antennal segments cylindrical *lotrix stigmata* Rothschild
- Antennal segments dentate or with short pectinations 2
- 2 Hind wing without line of yellow scent-scales in anal fold *salomonis* Rothschild
- Hind wing with line of yellow scent-scales in anal fold 3
- 3 Fore wing heavily marked with black; vertex with red scales but no black spot (Niue I. only) *maddisoni* sp. n.
- Forewing lightly marked with black; vertex lacking red scales and either with or without black spot 4
- 4 Hind wing with broad black band; antennal segments pectinate; posterior margin of valve straight; one group of vesical cornuti *clareae* Robinson
- Hind wing with narrow black band; antennal segments shallowly dentate; posterior margin of valve concave; two groups of vesical cornuti *pulchelloides* subsp. 5
- 5 Distal markings of antennal segments angled at 140°; maximum width of segments twice (or less) width of segment base [migrant — specimens often faded] *pulchelloides vaga* Jordan
- Distal margin of antennal segments straight; maximum width of segments more than twice width of segment base [resident species] *pulchelloides marshallorum* Rothschild

Distribution**Solomon Is., New Hebrides, New Caledonia, Loyalty Is.:**

Only two species of *Utetheisa* are found in this area, *salomonis* and *lotrix stigmata*. Both appear to be widespread, occurring wherever their foodplants occur. We have observed little variation in these species throughout their range. A typical example of *salomonis* is figured here (Plate IX, fig. 13): *stigmata* has been figured earlier (Robinson, 1971: pl. V, fig. 2; Robinson, 1975: pl. fig. 5). There is a single record of *U. pulchelloides vaga* from the New Hebrides (Robinson & Robinson, 1974); this specimen was a migrant from eastern Australia.

Norfolk Island:

Holloway (1977: 59, pl. 20, fig 1) has recorded *pulchelloides vaga* as a migrant to Norfolk I. from Australia and discussed it (1977: 142) as one of a number of vagrant species which regularly cross the Tasman Sea.

Fiji:

U. l. stigmata was recorded from the islands of Viti Levu, Vanua Levu, Yasawa, Nanuya Lailai and Vomo (Robinson, 1975: 104, pl. fig. 5) and is here recorded from Wakaya I. (1 ♂, 13-15.viii.1974, G. S. Robinson). It is a common species